

# Record of *Nemipterus randalli* Russell, 1986 (Nemipteridae) from Iskenderun Bay, Turkey

by

Murat BILECENOGLU (1) & Barry C. RUSSELL (2)

**RÉSUMÉ.** - Nouveau signalement de *Nemipterus randalli* Russell, 1986 (Nemipteridae) dans la baie d' Iskenderun, Turquie.

Un spécimen de *Nemipterus randalli* Russell, 1986, espèce de l'océan Indien occidental, a été capturé près des côtes de Cevlik, dans la baie d'Iskenderun, Turquie. La capture de ce spécimen en Turquie élargit, de façon significative, la répartition de *N. randalli* à la mer Méditerranée orientale.

**Key words.** - Nemipteridae - *Nemipterus randalli* - MED - Lessepsian migration - New record.

The Nemipteridae is a group of marine fishes restricted to the Indo-West Pacific region, including five genera with about 62 species (Russell, 1990). In the Mediterranean Sea, a single Lessepsian species, *Nemipterus randalli* Russell 1986, occurs.

During bottom trawl surveys conducted on 08 July 2007 off the Cevlik coast of Iskenderun Bay (36°01'46"N-35°57'19"E), Turkey, four specimens of *N. randalli* (Fig. 1) with standard lengths ranging 73.8 mm to 102.9 mm were captured by the F/V *Ali Baba*, at a depth of 50 m. Specimens were fixed in 6% formalin and deposited in the Zoology Museum of Adnan Menderes University (ZMADU P/071). This finding represents the first record of the species from Turkey, and represents a significant range extension in the Eastern Mediterranean Sea (Fig. 2).

Morphometric measurements of the four specimens are given in table I. Diagnostic characters are as follows (numbers in parentheses refer to mean values): Dorsal fin rays X, 9 (last ray branched at base), anal fin rays III, 7 (last ray branched at base), pectoral fin rays 16, pelvic fin rays I, 5. Body moderately deep, compressed laterally. Head length 3.01-3.14 (3.10), maximum body depth 2.85-3.37 (3.05), predorsal length 2.90-3.18 (3.07), preanal length 1.58-1.78 (1.66) and prepectoral length 3.05-3.27 (3.17), all in standard length. Snout length 3.22-3.63 (3.39), eye diameter 3.18-3.73 (3.40), interorbital distance 3.53-3.82 (3.66), postorbital length 2.19-2.42 (2.31), pelvic fins 1.19-1.28 (1.25), and pectoral fins 1.21-1.30 (1.24), all in head length. Suborbital distance 2.23-3.52 (2.98) in eye diameter. Mouth terminal; five pairs of small recurved canine teeth on the premaxilla. No vomer or palatine teeth. Body covered with ctenoid scales; 46-47 pored scales at the lateral line. Suborbital and anterior part of head naked; preopercle scaly with three transverse rows. Pectoral fins long and pointed, reaching beyond the level of anal fin origin. Caudal fin with a filamentous extension on the upper lobe. Upper part of the body is pinkish, becoming silvery on the ventral surface. Three or four pale yellow stripes on the lateral side. A golden blotch on the pectoral base. Dorsal fin pale bluish, upper margin edged with red, with closely packed yellow markings on the lower three fourths of the fin. Anal fin pale bluish with a narrow yellow medial band. Caudal fin with



Figure 1. - *Nemipterus randalli* (ZMADU/P-071, 91.3 mm SL), captured off Iskenderun Bay, Turkey. Scale bar = 10 mm.

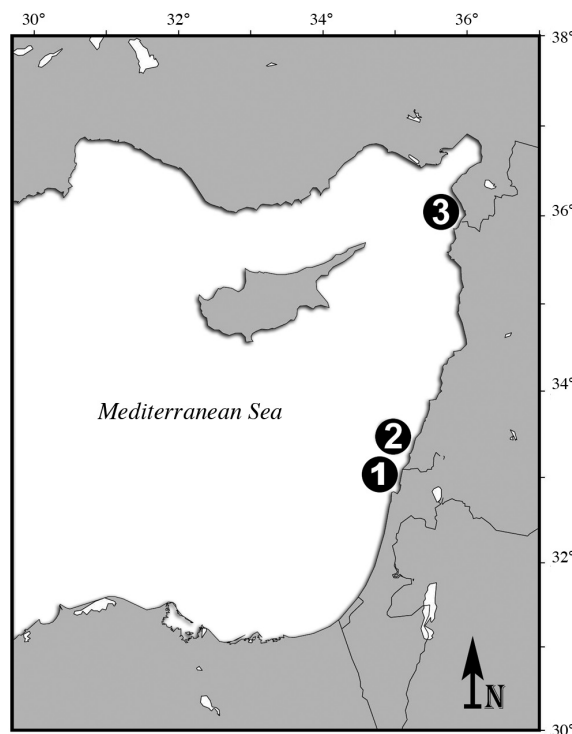


Figure 2. - Capture localities of *Nemipterus randalli* from the Mediterranean Sea. 1) February 2005: Haifa Bay; 2) February-March 2007: Tyre, Southern Lebanon; 3) July 2007-Iskenderun Bay. [Localité des captures de *N. randalli* en mer Méditerranée. 1) Février 2005 : baie d'Haifa ; 2) Février-mars 2007 : Tyr, sud du Liban ; 3) Juillet 2007 : baie d'Iskenderun].

red margin. Measurements and counts of Cevlik coast specimens are in accordance with descriptions of Russell (1986) and Lelli *et al.* (2008).

*N. randalli* is widespread in the Western Indian Ocean region,

(1) Adnan Menderes Üniversitesi, Fen Edebiyat Fakültesi, Biyoloji Bölümü, 09010 Aydın, TURKIYE. [mbilecenoglu@yahoo.com]  
(2) Marine Biodiversity Group, NRETA, Arafura Timor Research Facility, 23 Ellengowan Drive, Brinkin, NT 0810, AUSTRALIA.

Table I. - Morphometric measurements (mm) of *Nemipterus randalli* specimens from Turkey (ZMADU-P/071). [*Mesures morphométriques (mm) des spécimens de N. randalli provenant de Turquie (ZMADU-P/071)*].

Measurements	Specimens			
Standard length	73.8	79.5	91.3	102.9
Head length	23.5	26.4	29.3	33.1
Eye diameter	7.4	8.1	8.5	8.9
Interorbital distance	6.7	6.9	8.1	9.0
Postorbital length	10.3	10.9	12.5	15.1
Suborbital depth	2.1	2.5	2.9	4.0
Snout length	7.3	8.0	8.6	9.1
Predorsal length	24.3	27.4	28.8	32.6
Preanal length	45.5	50.2	51.4	61.8
Prepectoral length	23.2	26.1	27.9	32.3
Pectoral fin length	19.1	20.3	24.3	27.0
Pelvic fin length	18.8	20.6	22.9	27.9
Caudal peduncle depth	8.5	8.9	9.8	11.3
Dorsal fin base	36.3	40.1	45.5	51.7
Anal fin base	14.1	15.15	16.4	19.1
Body depth	24.2	27.9	27.1	35.4

including the east and west coasts of India; Pakistan; the Persian (Arabian) Gulf; Red Sea, including the Gulf of Aqaba; the Gulf of Aden; East African coast; the Seychelles and Madagascar; where it occurs on sand or muddy bottoms in depths of 22-225 m (Russell, 1986, 1990). The largest Mediterranean specimen reported was 161 mm SL (Golani and Sonin, 2006), but the species is known to reach 185 mm SL (Russell, 1990).

The first record of a nemipterid fish species in the Mediterranean Sea was an unconfirmed report of *Nemipterus japonicus* (Bloch, 1791) as a Red Sea immigrant (Fischer and Whitehead, 1974). Golani and Sonin (2006) described a single individual of *N. japonicus* captured by a trawler at a depth of 55 m at the southern edge of Haifa Bay (Israel). However, their specimen is a misidentification of *N. randalli*, and previous reports of *N. japonicus* from the Mediterranean, including unconfirmed records (Fischer and Whitehead, 1974; Diamant and Porter, 1983), can be referred to *N. randalli* (Lelli *et al.*, 2008). *Nemipterus randalli* is distinguishable from *N. japonicus* on the basis of morphology and colour (Russell, 1986): *N. randalli* has a shorter, more rounded suborbitals, longer pelvic fins (at least in adults), and different colouration of dorsal and anal fins.

*Nemipterus randalli* appears to have an established population in the Eastern Mediterranean that extends at least from Haifa Bay, Israel, to Cevlik coast of Iskenderun Bay, Turkey. In the Western

Indian Ocean, *N. randalli* constitutes an important part of the threadfin bream catch by small commercial trawlers (e.g., Menezes *et al.*, 2002), and may well form the basis of an important future fishery in Iskenderun Bay.

**Acknowledgements.** - This study was supported by the TUBITAK project no. 104Y065. The authors thank Dr. M.E. Cinar and E. Dagli for their help during the field work, and the crew of F/V *Ali Baba* for their kind assistance.

## REFERENCES

- DIAMANT A. & C. PORTER, 1983. - Occurrence of Japanese threadfin bream *Nemipterus japonicus* (Bloch 1791) in the northern Red Sea. *Cybium*, 7(3): 59-60.
- FISCHER W. & P.J.P. WHITEHEAD, 1974. - Nemipteridae. In: FAO Species Identification Sheets for Fisheries Purposes. Eastern Indian Ocean (Fishing Area 57) and Western Central Pacific (Fishing Area 71). Vol 3, Bony Fishes: Families from M to S (in part) (Fischer W. & P.J.P. Whitehead, eds), pp. 2-12. Rome: FAO.
- GOLANI D. & O. SONIN, 2006. - The Japanese threadfin bream *Nemipterus japonicus*, a new Indo-Pacific fish in the Mediterranean Sea. *J. Fish Biol.*, 68: 940-943.
- LELLI S., COLLOCA F., CARPENTIERI P. & B.C. RUSSELL, (2008). - The threadfin bream *Nemipterus randalli* Russell, 1986 (Perciformes: Nemipteridae) in the Eastern Mediterranean Sea. *J. Fish Biol.*: 73:740-745.
- MENEZES M.R., AROLKAR U. & V. RATHOD, 2002. - Genetic relationships among five nemipterid fish species from the Indian coast using allozyme analysis. *J. Fish Biol.*, 60: 1326-1330.
- RUSSELL B.C., 1986. - Review of the western Indian Ocean species of *Nemipterus* Swainson 1839, with description of a new species (Pisces: Nemipteridae). *Senckenb. Biol.*, 67: 19-35.
- RUSSELL B.C., 1990. - Nemipterid fishes of the world (Threadfin breams, whiptail breams, monocle breams, dwarf monocle breams, and coral breams) Family Nemipteridae. An annotated and illustrated catalogue of nemipterid species known to date. *FAO Fish. Syn.*, 12(125) (Russell B.C., ed.), pp. 1-149. Rome: FAO.

Reçu le 21 août 2007.

Accepté pour publication le 27 novembre 2007.